



State of Illinois  
Illinois Emergency Management Agency

# Severe Weather Preparedness



**ILEMA**



## 2010 ILLINOIS SEVERE WEATHER FACTS

There are a number of severe weather hazards that affect Illinois, including thunderstorms, tornadoes, lightning, floods and flash floods, damaging winds and large hail. Severe weather hazards can cause extensive property damage, injury or death.

### Tornadoes

- Most tornado damage paths in Illinois are less than 100 yards wide and a couple of miles long, but can be up to a mile wide and more than 60 miles long.
- **The majority of Illinois tornadoes have occurred between April 1 and June 30, and between the hours of 3 PM and 10 PM.** However, they have occurred every month of the year at all hours of the day.
- **Nearly 30% of all tornadoes in Illinois occur after dark.** Nationally, more than half of all tornado deaths have occurred at night. It is **CRITICAL** that homes and businesses have someone monitor severe weather conditions – especially at night. A weather radio is an excellent way to do this.
- There is an **average of 43 tornadoes** each year in Illinois.
- There were **52 tornadoes** reported in Illinois **during 2009, which caused more than \$25 million in damage. There were no fatalities, but 27 people were injured.** All of the injuries occurred as a result of tornado outbreaks on two days: March 8th and August 19th.

### Thunderstorms

- **Severe thunderstorms can produce tornadoes, damaging winds, lightning, hail or heavy rain.**
- High wind from straight-line winds and downbursts can cause more damage than nearly 70% of the tornadoes that occur in Illinois!
- **Most lightning deaths occur under or near trees and in open fields.**
- There have been 27 people killed by lightning in Illinois since 1990.
- The largest hailstone to recently affect Illinois fell near the town of Philo, in Champaign County, where grapefruit sized hail (4.25" diameter) was reported on May 30, 2008.

### Flooding

- **Flooding is the number one severe weather killer nationwide.**
- Nationally, 75% of presidential disaster declarations are the result of floods.
- **The most dangerous type of flooding is a flash flood.** Flash floods can sweep away everyone and everything in their path.
- Most flash floods are caused by slow-moving thunderstorms, and occur most frequently at night.
- Floods have killed 23 people in Illinois since 1995, four of which occurred in 2009. Most of the fatalities involved people in vehicles trying to cross a flooded roadway.

## RECOMMENDED ACTIONS FOR SEVERE WEATHER

By becoming familiar with and implementing the following recommended actions, you and your family will be better protected in the event of tornadoes, severe thunderstorms and flooding.

### 1. TORNADOES

#### BEFORE A TORNADO

Know the terms used to describe tornado threats:

**Tornado Watch -- Tornadoes are possible.** Watch the sky and listen to the radio or television for more information. Be prepared to take shelter. If you see any rotating funnel-shaped clouds, report them immediately by telephone to your local law enforcement agency. **If you live in a mobile home, this is the time to move to a more substantial structure.**

**Tornado Warning -- A tornado has been sighted or indicated by weather radar. The storms may also produced damaging downburst winds in excess of 60 mph and/or hail one inch or larger.** Take shelter immediately. Turn on a battery-operated radio or television and wait for updated information for your area.

- **It is critical that someone at home, work, or wherever people gather, monitors weather conditions, regardless of the time of day!** Many deadly tornadoes occur at night. Use a weather alert radio, local TV and radio, or the Internet to monitor watches and warnings for your area. **Don't rely completely on outdoor warning sirens – especially if you're asleep!!**
- **If you live in a mobile home, identify a safe shelter outside of your mobile home** such as a community shelter, a neighbor or friend's house, or a nearby public building. Half of all tornado fatalities occur in mobile homes – even though they only account for 7% of all residences.
- **Purchase a National Oceanic and Atmospheric Administration (NOAA) Weather Alert Radio** with a battery backup, a tone-alert feature, and Specific Area Message Encoding (SAME) technology, which automatically alerts you when a Watch or Warning is issued for your county.
- **Determine the best location in your home and office to seek shelter when threatened by a tornado.** A basement or cellar will usually afford the best protection. If an underground shelter is not available, identify an interior room or hallway on the lowest level. Closets, small interior hallways, and bathrooms without windows are the best areas.
- **Maintain a disaster supply kit.** This kit will help your family cope during extended power outages in the aftermath of a storm.

- **Conduct periodic tornado safety drills at home AND at work.** Decide how and where everyone will gather prior to and after the storm.
- **Consider retrofitting your house** with special fasteners, connectors and reinforcing bands to strengthen the structural integrity. Also, **consider installing a reinforced concrete and steel “safe room”** as a small room within your house, or excavated and installed in your yard, or beneath your garage floor.

## DURING A TORNADO

**Take the following actions when a Tornado Warning has been issued by the National Weather Service, when sirens have been activated, or when a tornado has been sighted near your area.**

### *AT HOME*

- **Go immediately to your predetermined shelter** (storm cellar, basement or the lowest level of the building). In a basement, go under the stairs, under a heavy piece of furniture or a work bench. Stay there until the danger has passed.
- **If in a mobile home, get out and seek shelter elsewhere, well before the storm arrives.** A mobile home can overturn very easily, even if precautions have been taken to tie down the unit. If there isn't a substantial shelter nearby, go to a low-lying area, and shield your head with your hands.
- **If there is no basement, go to an inner hallway or a small inner room without windows,** such as a bathroom or closet. Outside windows and walls may be penetrated by high speed, wind-borne debris.
- **Get under a piece of sturdy furniture,** such as a workbench or heavy table, and hold onto it.
- **Use pillows, mattresses or cushions to protect your head and neck.**

### *IN A SCHOOL, NURSING HOME, HOSPITAL, SHOPPING CENTER, OR WORKPLACE*

- **Go to the designated storm shelter,** basement, or to an inside hallway on the lowest level.
- **Avoid places with wide-span roofs,** such as auditoriums, cafeterias, gymnasiums and large hallways. Stay away from windows and open spaces.
- **Get under a piece of sturdy furniture,** such as a workbench, heavy table or desk, and hold onto it. If sturdy furniture is not available, make yourself the smallest target possible. Squat low to the ground. Put your head down and cover your head and neck with your hands.
- **If in a high-rise building, go to small, interior rooms or hallways on the lowest level possible** and seek protection as detailed above. Stay away from windows and outside walls.



## *OUTDOORS*

- **If possible, get inside a substantial building**, on the lowest floor – away from windows and doors.
- **If an indoor shelter is not available**, or there is no time to get indoors, **lie in a ditch or culvert**. Use your arms to protect your head and neck. Stay aware of the potential for flash flooding.

## *IN A VEHICLE*

- **Do NOT park under a bridge or overpass!**
- **Safely get out of the vehicle immediately and take shelter in a nearby building.**
- **Never try to outrun a tornado in a vehicle.** Heavy rain, hail and traffic may impede your movement. Tornadoes can change directions quickly and can easily lift up a vehicle and toss it through the air.
- **As a VERY last resort**, if there isn't time to get indoors – or if there is no secure shelter nearby, you have one of two choices (1) get out of the vehicle and lie flat in a ditch, culvert, or low-lying area away from your vehicle OR (2) stay in the vehicle, with your seat belt fastened, and get as low as you can below the level of the windows. Your choice should be determined by your specific circumstances. **The key point is: these options are last resorts. Seeking shelter in a sturdy building is the preferred method of staying safe in a tornado.**

## *AFTER A TORNADO*

- **Monitor the radio or television** for emergency information or instructions.
- **Be extremely careful in areas of downed power lines or natural gas leaks.** Wear adequate footwear to avoid cuts from broken glass or nails protruding from boards.
- **Check for injured victims.** Render first aid if necessary. **Do not attempt to move severely injured victims unless absolutely necessary.** Wait for emergency medical assistance to arrive.
- **Check on neighbors or relatives** who may require special assistance.
- **Exit damaged buildings.** Re-enter only if absolutely necessary using great caution.
- **Take photos or video of the damage to your home and property, and report it to local emergency managers.**
- **If unaffected by the tornado, stay out of the damaged area until local officials allow entry.** Your presence may hamper emergency operations.

## 2. SEVERE THUNDERSTORMS

### BEFORE SEVERE THUNDERSTORMS

Know the terms used to describe severe thunderstorm threats:

**Severe Thunderstorm Watch** -- **Severe thunderstorms are possible.** Watch the sky and listen to the radio or television for more information. Be prepared to take shelter.

**Severe Thunderstorm Warning** -- **Severe thunderstorms will be approaching or are occurring. Severe thunderstorms produce damaging wind in excess of 60 mph and/or hail one inch in diameter or larger.** Seek safe shelter. Turn on a battery-operated radio or television to receive warnings and severe weather statements.

- **Wind gusts from severe thunderstorms can do as much or more damage than many tornadoes!** Extended power outages, downed trees and extensive damage to roofs, doors and windows can all occur from straight line wind gusts and downbursts of wind.
- **Check the weather forecast** before leaving for extended outdoor periods and postpone plans if severe weather is imminent.

### DURING THUNDERSTORMS

- **Stay away from all windows and doors during the storm.** If you can do it safely, draw the shades or blinds to reduce the risk from flying glass if it breaks due to high winds.
- **Monitor the radio or television** for the latest weather information.
- **Avoid using a corded telephone or other electrical appliances** until the storm passes.
- **Turn off air conditioners.** If lightning strikes, a power surge could damage the compressor.
- **Delay taking baths or showers** until after the storm passes due to the lightning threat.
- **If outdoors, seek shelter IMMEDIATELY!** If you can hear thunder, you are probably close enough to the storm to be struck by lightning.
- **If you are driving, pull safely to the shoulder away from trees and power lines.** Lightning can flash from trees or power poles and strike a vehicle. The rubber tires do NOT keep lightning from striking a vehicle. Normally, in the open, a vehicle is a safe shelter from lightning. Avoid touching metal parts of the vehicle when lightning is nearby.

- **If you are in a boat** when a thunderstorm threatens, **you should attempt to reach shore as quickly as possible.**
- If you find yourself in a position where there is **no immediate shelter available**, **find a low spot away from trees and power poles.**

## AFTER THUNDERSTORMS

- **Monitor the radio or television** for emergency information or instructions.
- **Check for injured victims.** Render first aid if necessary.
- **Most lightning strike victims can be revived with CPR.** Do not attempt to move severely injured victims unless absolutely necessary. Wait for emergency medical assistance to arrive.
- **Take photos or video of any damage to your home or property**, and report it to local emergency managers.
- **Do not make unnecessary telephone calls.**
- **If driving, be alert for hazards on the roadway.**
- **Check on neighbors or relatives** who may require special assistance.

## 3. FLOODING

### BEFORE A FLOOD

Know the terms used to describe flood threats:

**Flood Watch** -- Flooding or flash flooding is possible. Be prepared to move to higher ground. Listen to NOAA Weather Radio, commercial radio or commercial television for additional information.

**Flood Warning** -- Flooding is occurring or will occur soon. If advised to evacuate, do so immediately.

**Flash Flood Warning** -- A flash flood is occurring or is imminent. Move to higher ground immediately. Flash floods develop MUCH quicker than river floods.

**Flood Statement** -- Minor flooding of creeks and streams, streets, low-lying areas or basement flooding is occurring or is imminent.

- **Learn flood warning signs** and, if used in your area, any community alert signals.
- **Know how to shut off electricity, gas and water** at main switches and valves. Know where gas pilots are located and how the heating system works.
- **Have check valves installed in building sewer traps** to prevent flood waters from backing up in sewer drains. As a last resort, use large corks or stoppers to plug showers, tubs or basins.
- **Consider measures for flood proofing your home.** Call your local building department or emergency management agency (EMA) for information.
- **Consider purchasing flood insurance.** Flood losses are not covered under homeowners insurance policies. Flood insurance is available in most communities through the National Flood Insurance Program. There is usually a period before it takes effect, so don't delay. Flood insurance is available whether the building is in or out of the identified flood-prone area. Call your insurance company for more information.
- **Insure your property and possessions.** Make an inventory of your possessions using paper lists, photographs and/or videotapes of your belongings. Leave a copy with your insurance company. Update your inventory and review your coverage with your insurance company periodically.
- **Keep all of your important records and documents in a safe deposit box or another safe place away from the premises.**

## DURING A FLOOD

- **People lose their lives by attempting to drive over a flooded roadway.** The speed and depth of the water is not always obvious. There may be a hidden portion of the roadway washed out under the water. Two feet of water will carry away most automobiles.
- **Monitor the radio or television** for the latest weather information.
- **Move valuable household possessions to the upper floor** or move to another location if flooding is imminent and time permits.
- **If instructed to do so by local authorities, turn off utilities at their source.**
- **Listen to a battery-operated radio for evacuation instructions.**
- **If advised to evacuate, do so quickly.** Evacuation is much simpler and safer before flood waters become too deep for ordinary vehicles to drive through.
- **Follow recommended evacuation routes.** Short cuts may be blocked.



## AFTER A FLOOD

- **Do not let children play in or near flood waters, flooded creeks or flood retention ponds.**
- **Stay alert in areas where flood waters have receded.** Roads may have weakened and could collapse under the weight of a vehicle. **NEVER cross a flooded road or bridge in your vehicle!**
- **Flood dangers do not end when the water begins to recede.** Listen to a radio or television and don't return home until authorities indicate it is safe to do so. When you are allowed to return, remember to help your neighbors who may require special assistance.
- **Inspect foundations for cracks or other damage.** When entering buildings, use extreme caution. If your home was damaged, check the utilities.
- **Look for fire hazards.**
- **Stay out of buildings that remain in the flood waters.**
- **Avoid coming in contact with flood waters.** The water may be contaminated with oil, gasoline or raw sewage. Do not wade through a flooded stream to protect or retrieve belongings.
- **Consider your family's health and safety.** Wash your hands frequently with soap and clean water if you come in contact with flood waters. Listen for news reports to learn whether the community's water supply is safe to drink.
- **Throw away food** -- including canned goods -- that has come in contact with flood waters.
- **Pump out flooded basements gradually (about one-third of the water per day) to avoid structural damage.**
- **Service damaged septic tanks, cesspools, pits and leaching systems** as soon as possible. Damaged sewer systems pose a health hazard.
- **If unaffected by the flood, stay out of the area** until you are permitted by local officials. Your presence may hamper emergency operations.
- **Monitor the radio for special information about where to go to get assistance for housing, clothing and food.** Other programs are available to help you cope with the stress of the situation.
- **Take photos or video of the damage to your home and your belongings.**

## SOURCES OF WEATHER AND WEATHER SAFETY INFORMATION

For additional information on severe weather or other hazards, contact the following:

- Your local Emergency Management Agency (EMA/ESDA)
- Your local chapter of the American Red Cross (ARC) or [www.redcross.org](http://www.redcross.org)
- The nearest office of the National Weather Service (NWS)
- National Weather Service Forecast Office websites:

Davenport, IA	<a href="http://www.weather.gov/davenport">www.weather.gov/davenport</a>
Romeoville, IL	<a href="http://www.weather.gov/chicago">www.weather.gov/chicago</a>
Lincoln, IL	<a href="http://www.weather.gov/lincoln">www.weather.gov/lincoln</a>
St. Louis, MO	<a href="http://www.weather.gov/stlouis">www.weather.gov/stlouis</a>
Paducah, KY	<a href="http://www.weather.gov/paducah">www.weather.gov/paducah</a>

- Illinois Emergency Management Agency website at <http://www.state.il.us/iema>
- State of Illinois [www.ready.illinois.gov](http://www.ready.illinois.gov)

## NOAA WEATHER RADIO – ALL HAZARDS

Listen to NOAA Weather Radio – All Hazards for the latest weather forecasts. The National Weather Service broadcasts weather information, including watches, warnings and advisories 24 hours a day. Weather radio transmitters have a range of about 40 miles. Weather radio transmitters that cover Illinois are shown below. To find the weather radio transmitter that serves your location, go to the following web site:

<http://www.nws.noaa.gov/nwr/CntyCov/nwrIL.htm>

CITY	STATION	FREQUENCY
Bloomington	KZZ-65	162.525 MHZ
Cape Girardeau, MO	KXI-93	162.550 MHZ
Champaign	WXJ-76	162.550 MHZ
Chester	KXI-42	162.450 MHZ
Chicago	KWO-39	162.550 MHZ
Crescent City	KXI-86	162.500 MHZ
Crystal Lake	KXI-41	162.500 MHZ
DeKalb	WNG-536	162.550 MHZ
Dixon	KZZ-55	162.525 MHZ
Dubuque, IA	WXL-64	162.400 MHZ
Edwardsport, IN	WWG-82	162.425 MHZ
Evansville, IN	KIG-76	162.550 MHZ
Freeport	KZZ-56	162.450 MHZ
Galesburg	KZZ-66	162.400 MHZ
Hannibal, MO	WXK-82	162.475 MHZ
Hillsboro	KXI-79	162.425 MHZ
Jacksonville	WXM-90	162.525 MHZ
Jerseyville	KXI-70	162.450 MHZ
Kankakee	KZZ-58	162.525 MHZ
Lockport	KZZ-81	162.425 MHZ
Macomb	WXJ-92	162.500 MHZ
Maquoketa, IA	KZZ-83	162.500 MHZ
Marion	WXM-49	162.425 MHZ
Mayfield, KY	KIH-46	162.475 MHZ
McLeansboro	KXI-52	162.400 MHZ
Medill, MO	WXL-99	162.450 MHZ
Newton	KXI-48	162.450 MHZ
Odell	WXK-24	162.450 MHZ
Paris	KXI-47	162.525 MHZ
Peoria	WXJ-71	162.475 MHZ
Plano	KXI-58	162.400 MHZ
Princeton	WXL-22	162.425 MHZ
Putnamville, IN	WXK-72	162.400 MHZ
Racine, WI	KZZ-76	162.450 MHZ
Rock Island (Moline)	WXJ-73	162.550 MHZ
Rockford	KZZ-57	162.475 MHZ
Salem	KXI-49	162.475 MHZ
Shelbyville	KXI-46	162.500 MHZ
Springfield	WXJ-75	162.400 MHZ
St. Louis, MO	KDO-89	162.550 MHZ
West Burlington, IA	WXN-83	162.525 MHZ

## EMERGENCY SUPPLY KIT

A disaster of any kind may interfere with normal supplies of food, water, heat and day-to-day necessities. It is important to keep a stock of emergency supplies on hand sufficient to meet your family's needs for at least a three-day period.

It is also advisable to update your kit regularly. You should replace the water supply and any food that may have reached its use-by or expiration date. An easy way to remember to update your kit is to use Daylight Savings Time. When you change your clocks, you should also change your kits.

### **An emergency supply kit should include the following:**

- A battery powered radio, weather radio, and flashlights, with extra batteries
- Bottled drinking water – one gallon per day per person with at least a three-day supply for each person
- Canned or sealed packaged foods that do not require refrigeration or cooking (at least a three-day supply)
- Non-electric can opener, utility knife and Mess kits
- Paper towels, toilet paper, soap and detergent
- Household laundry bleach (unscented)
- A blanket or sleeping bag for each member of the family
- One change of clothing and footwear per person
- Fire extinguisher
- Shut-off wrench, to turn off household gas and water
- Signal flare, matches and whistle
- Cell phone and extra battery
- An extra set of car keys and a credit card, cash or traveler's checks
- A list of family physicians
- First-aid kit and manual
- Medications or special foods needed by family members such as insulin, heart medication, dietetic food and baby food (Do not store in the kit for long period of time but add at the last minute)
- If needed – formula, diapers, and bottles
- Denture needs, extra eye glasses and contact lens supplies
- You can store additional water by filling bathtubs and sinks with water if an emergency is declared. Clean water is also available in toilet tanks, presuming chemicals and other cleaning agents are not used in the water tank.

### **If you have pets, include the following items in your kit:**

- Identification collar and rabies tag
- Pet carrier or cage
- Leash
- Medications
- Newspaper, litter, trash bags for waste
- Two-week supply of food and water
- Veterinary records (necessary if your pet has to go to a shelter)

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